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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/737,417	12/15/2003	Eiichi Terada	13693	6336

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ORUM & ROTH
53 W. JACKSON BLVD
CHICAGO, IL 60604

EXAMINER WEISKOPF, MARIE	
ART UNIT 3661	PAPER NUMBER

DATE MAILED: 08/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/737,417

Applicant(s)

TERADA, EIICHI

Examiner

Marie A. Weiskopf

Art Unit

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki et al. (US004609064A).

Per claim 1, Suzuki teaches a drive system switching control method of a four-wheeled vehicle for switching two drive systems including the steps of detecting a steering angle (steering angle sensor 30, figure 6A) and inhibiting the drive system switching if the detected steering angle is over a predetermined angle (column 5, line 58 – column 6, line 5).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. (US004609064A).

Per claim 2, Suzuki teaches a drive system switching control method of a four-wheeled vehicle for switching two drive systems including the steps of detecting a

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steering angle and a vehicle speed (30, 40; figure 6A), comparing the detected steering angle and vehicle speed with a corresponding relationship and analyzing a predetermined drive system switching to determine whether or not it is allowed (see figure 6B), and inhibiting the drive system switching if the switching is not allowed (column 5, line 58 – column 6, line 5). Suzuki, however, fails to disclose inhibiting the drive system from switching both from two to four and four to two wheel drive modes if it is determined that the drive system switching is not allowed. Suzuki only specifically discloses inhibiting the drive system from being changed from the four-wheel drive mode to the two-wheel drive mode. Suzuki et al discusses the fact that steering is done differently depending on which drive mode the vehicle is in, two or four wheel. For four-wheel drive mode, the vehicle is turned with the tendency to understeer due to the effect of the tight corner break. In two-wheel drive mode, the vehicle is turned in the condition of neutral steer. (Column 5, lines 40-43) It would have been obvious to one having ordinary skill in the art at the time of the invention to recognize that inhibiting the drive system switching from both two to four and four to two wheel drive modes would be beneficial due to the teaching of Suzuki which states that if the cornering characteristic of the vehicle is changed while the vehicle is running at high speeds there is a greater possibility that the vehicle will be oversteered, or the directional control of the vehicle will be lost. (Column 5, lines 43-49) This also is based upon the steering angle of the vehicle as discussed in Suzuki.

Per claim 3, Suzuki teaches a drive system switching control method of a four-wheeled vehicle for switching two drive systems including the steps of detecting a

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steering angle and a vehicle speed (30, 40; figure 6A), comparing the detected steering angle and vehicle speed with a corresponding relationship and analyzing a predetermined drive system switching to determine whether or not it is allowed in correspondence to the vehicle speed (see figure 6B), and inhibiting the drive system switching if the switching is not allowed (column 5, line 58 – column 6, line 5). Suzuki, however, fails to disclose inhibiting the drive system from switching both from two to four and four to two wheel drive modes if it is determined that the drive system switching is not allowed. Suzuki only specifically discloses inhibiting the drive system from being changed from the four-wheel drive mode to the two-wheel drive mode. Suzuki et al discusses the fact that steering is done differently depending on which drive mode the vehicle is in, two or four wheel. For four-wheel drive mode, the vehicle is turned with the tendency to understeer due to the effect of the tight corner break. In two-wheel drive mode, the vehicle is turned in the condition of neutral steer. (Column 5, lines 40-43) It would have been obvious to one having ordinary skill in the art at the time of the invention to recognize that inhibiting the drive system switching from both two to four and four to two wheel drive modes would be beneficial due to the teaching of Suzuki which states that if the cornering characteristic of the vehicle is changed while the vehicle is running at high speeds there is a greater possibility that the vehicle will be oversteered, or the directional control of the vehicle will be lost. (Column 5, lines 43-49) This also is based upon the steering angle of the vehicle as discussed in Suzuki.

Response to Arguments

4. Applicant's arguments filed 4/3/06 have been fully considered but they are not persuasive. Applicant argues that the reference to inhibition of switching related to conditions involving the sensing of speed and wheel angle, not the wheel angle alone. Examiner agrees with this statement, however, the claims of the applicant do not state that there is only the use of the steering angle to determine whether or not to inhibit the switching. The cited reference does in fact use the steering angle in order to help determine whether or not inhibiting of the drive system should happen. Further, the claims of the applicant does not state that the switching of modes discusses automatic and manual switching, the claims are silent as to this matter and although the claims are read in light of the specification, limits from the specification are not read into the claims.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marie A. Weiskopf whose telephone number is (571) 272-6288. The examiner can normally be reached on Monday-Thursday between 7:00 AM and 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



THOMAS BLACK
SUPERVISORY PATENT EXAMINER